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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,627	10/08/2003	Carl H. June	WYS-01402	7408

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EXAMINER	
LEAVITT, MARIA GOMEZ	

ART UNIT	PAPER NUMBER
1633	

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12/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/681,627	JUNE, CARL H.	
	Examiner	Art Unit	
	Maria Leavitt	1633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,7-15 and 17-47* is/are pending in the application.

4a) Of the above claim(s) *10-14,18,21, 23-45* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,7-9,15,17,19,20,47 and ~~X~~46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Status of claims. Claims 1, 3, 7-15 and 17-47 are currently pending. Claims 2, 4-6, and 16 have been canceled, claims 1 and 15 have been amended, claims 10-14, 18, 21 and 23-45 have been withdrawn and claims 46 and 47 have been added by Applicants' amendment filed on September 27, 2007. This application contains claims 10-14, 18, 21 and 23-45 drawn to an invention nonelected with traverse in the reply filed on 10-30-2006. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01
3. Therefore, new claims 1, 3, 7-9, 15, 17, 19, 20, 22, 46 and 47 are currently being examined to which the following grounds of rejection are applicable.

Response to arguments

Withdrawn objections/rejections in response to Applicant arguments or amendments:

Objection Drawings

In view of Applicants submission of new drawings for Figures 1-7B filed on 07-18-2007, objection to the drawings has been withdrawn.

Remaining rejections in response to Applicant arguments or amendments:

Claim Rejections - 35 USC § 102

Claims 1-6 are remain rejected under 35 U.S.C. 102(e) as being anticipated by Bonjouklian et al., U.S. Patent No. 5,504,103, Date of Publication, April 2 1996 (hereafter referred to as Bonjouklian et al) as evidence by Liu et al., Current Opinion in Immunology, 1992, pp. 265-70) for the reasons of record and the following arguments:

While Bonjouklian does not explicitly teach activation of T cells through the TCR/CD3 complex and CD28 before they are contacted with an agent, Liu et al, exemplified prior art that teaches that it is routine or well-established in the art for the immune system to be continually engaged in removing or inactivating T cells that are autoreactive in order to induce peripheral tolerance to self tissues. Peripheral tolerance distinguished between TCR engagements by foreign antigens delivered by costimulatory signals by APC but not tissue cells (p. 265, col. 1). Moreover, T cell activation involves stimulation of the antigen receptor (TCR) which delivers the primary stimulus and costimulation by other accessory molecules including CD28 expressed on resting T cells which bind their specific by their natural ligands leading to T cell proliferation (p. 266, col. 1, paragraph 1; p. 268, col. 1, and Fig. 1). Hence, the presence in the immune system at all times of some activated T cells used for self-non-self discrimination is intrinsically necessary as evidenced by the teachings in the prior art exemplified by Bonjouklian et al.

Claim Rejections - 35 USC § 112 - enablement

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 15-17, 19, 20 and 22 remain rejected are rejected under 35 U.S.C. 112, first paragraph, because the specification while being enabling for:

An *in vitro* method for inhibiting T cell activation as assessed by production of IL-2 comprising stimulating a T cell through the TCR/CD3 complex and CD28 and further contacting said T cell with an agent wherein the agent is selected from the group consisting of Wortmannin, quercetin and LY294002, thereby inhibiting the activity of phosphatidylinositol 3-kinase within the T cell,

does not reasonably provide enablement for claims directed to a method of inducing unresponsiveness to an antigen in a T cell and further administering the T cell to a subject suffering from an autoimmune disease. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Response to Applicant Arguments as they apply to rejection of Claims 15-17, 19, 20 and 22 under 35 U.S.C. 112, first paragraph.

On page 7 of applicant's remarks, applicant argues that the specification discloses "a number of different diseases and conditions upon which the inhibition of an immune response may be used to treat those diseases and conditions. Thus, one skilled in the art after reading the specification would recognize that the inhibition of the activity of phosphatidylinositol 3-kinase to downregulate an immune response would be advantageous in a variety of diseases, including the treatment of autoimmune diseases such as rheumatoid arthritis, psoriasis, multiple sclerosis, and Crohn's disease (see, e.g., the paragraph bridging pages 9-10 of the specification)". Such is

not persuasive.

As stated in the previous office action, the instant claims are broadly drawn to a method for inducing unresponsiveness to an autoantigen in a T cell, comprising providing a T cell for which inhibition of T cell activation is desired, and contacting the T cell which are stimulated through the TCR/CD3 complex and CD28 with Wortmannin, and further administering said T cell to a subject suffering from an autoimmune disorder with the contemplated treatment and/or prevention of said disorder. The subject could be reasonably construed as a human subject suffering from any number of autoimmune disease e.g., rheumatoid arthritis, Crohn's disease, psoriasis, asthma, myasthenia gravis, chronic inflammatory demyelinating polyneuropathy. These are widely divergent diseases in terms of their pathologic mechanisms. For example, patients with rheumatoid arthritis were treated with concomitant immunosuppressant, whereas patients with Crohn's disease don't follow the same regimen of concomitant immunosuppressant (Rott et al., Clinical Review, 2005, 716-720; p. 717, col. 2, last paragraph). A reasonable correlation must exist between the scope of the claims and scope of enablement set forth in the specification as filed. Without sufficient guidance, the mere enumeration of a variety of diseases, including the treatment of autoimmune diseases such as rheumatoid arthritis, psoriasis, multiple sclerosis, and Crohn's disease, as applicants argue, is unpredictable and the experimentation left to those skilled in the art is unnecessarily and improperly extensive and undue. Hence, the scope of the patent protection sought by the Applicant as defined by the claim fails to correlate with the scope of enabling disclosure set forth in the specification.

On page 7 of applicant's remarks, applicant argues that "the examiner has relied heavily on the unpredictability of the art in support of this rejection" . Moreover, Applicants contend that "In determining whether a given disease falls within the scope of the claims, the T-cell response of individuals suffering from a disease (e.g., in response to an antigen) may be compared to the T-cell response of normal healthy individuals (e.g., in response to the same antigen). A difference in the respective T-cell responses indicates that inducing unresponsiveness to an antigen in a T cell of a diseased individual, via the claimed invention, to reflect that of the healthy individual, will be therapeutic for the diseased individual, and thus that the disease of the individual falls under the scope of the present invention" and as such Applicants submit that it would not require undue experimentation to practice the instant invention broadly drawn to a method for treatment and/or prevention of a subject. Such is not persuasive.

As discussed in the paragraph above, the instant invention broadly contemplates treatment and/prevention of widely divergent autoimmune diseases, characterized with disease specific conditioning regimens, toxicity, outcome, source of T cells, and post administration follow-up. The as filed specification does not provide sufficient disclosure addressing these disease specific issues. Thus, given the unpredictability of the art and the lack of working example in the instant specification, one skilled in the Art will have to perform extensive experimentation with each of these parameters to find the embodiments embraced by Applicant' claims, and as such, this experimentation would be considered undue.

Rejection, Obviousness Type Double Patenting-

Claims 1-6, 7, 8-9 remain rejected and new claims 46 and 47 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4, 7-10 of U.S. Patent No. 6, 632, 789 for the reasons of record. Applicants have not addressed properly this rejection.

Conclusion

Applicant response filed on 10-06-2006 has been considered by the Examiner but is moot in view of the new grounds of the rejection, which is necessitated by the claims amendment.

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Leavitt whose telephone number is 571-272-1085. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach, Ph.D can be reached on (571) 272-0739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

To aid in correlating any papers for this application, all further correspondence regarding his application should be directed to Group Art Unit 1633; Central Fax No. (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

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